



Photos by Jonathan Downey/For The New Mexican

Violinist Steina Vasulka performs at Studio X Saturday while intern Gaeme Lowry and producer David Brownlow (far left) make video snapshots of the performance and send them to California and New York.

Musicians and audiences in California, New York and Santa Fe collaborate with the help of computers and phone lines

Cyberspace concert

By **HOLLIS WALKER**
The New Mexican

History was made in Santa Fe Saturday in the form of a technological triumph that would have set even the visionary Alexander Graham Bell on his ear.

A group of the world's premier electronic musicians performed the first ever simultaneous teleconcert from three locations before audiences in those cities.

Eric Martin, director of computer research at California Institute of the Arts and an emcee of the program, called it "a new public event held in cyberspace," where "artist and audience share a common collaborative experience in space and time."

Sound confusing? Even some of the people involved can't entirely grasp the technology.

"If you understand it, congratulations," said David Brownlow, owner of Studio X, the experimental media company that served as Santa Fe's site for the teleconcert.

The teleconcert also was transmitted from The Electronic Café International in Santa Monica, Calif., and The Kitchen in New York, both multimedia telecommunications sites.

The event used phone lines to transmit videophone still photos and the musical and spoken audio signals generated at all three sites. Computer modems were used to transmit musical instrument digital interface (MIDI) signals. The musicians performed by triggering electronically produced music and images.

During parts of the performance, they created music in one locale that was actually being played on an instrument at another location and simultaneously transmitted to all three sites. (Well, almost simultaneously. There was a quarter-second delay, but it was imperceptible.)

The 30 or so people gathered in the warehouse laboratory at Studio X watched the images on four television monitors and heard the voices of emcees, musicians and audience members in New York and Santa Monica as well as those transmitted from Studio X. They heard a duet played by a musician in New York — with his partner in Santa Monica.

In between and after the musical performances, audience members, musicians and "digimeisters" — the technicians who made it all happen — discussed both the technology and philosophy of this new kind of performance interaction.

The innovator behind the event was part-time Santa Fe resident Morton Subotnick, considered to be the father of

electronic music, and now co-director of composition at Cal Arts. Subotnick visited Studio X several months ago, came up with the idea for the teleconcert and got grants to create it, including the support of AT&T, said Brownlow.

Other participants, like Subotnick, also are heavyweights in the world of electronic arts: David Rosenboom, dean of the Cal Arts school of music; J.B. Floyd, chairman of the department of keyboard music at University of Miami; and Santa Fe resident Steina Vasulka, a founder of The Kitchen and violinist who creates multi-channel video-music presentations. (We're talking way beyond MTV here, folks.) Also performing was Wadada Leo Smith, a trumpeter who has written a new comprehensive music theory.

Subotnick, in New York, kicked off the concert by playing an excerpt from a media opera he is developing called *Angel Concerto*. Subotnick played the Disklavier grand piano — with the movement of his hands, arms and legs. The



Morton Subotnick performs *Angel Concerto* from New York on Saturday.

videophone images of Subotnick showed him standing, his hands held before him as perhaps a conductor might gesture. The motions of his body triggered sensors that played a grand piano. The Santa Fe audience was enraptured.

Vasulka's piece was, predictably, the most exciting to the Santa Fe audience. She played a MIDI violin that sounds notes like an acoustic violin but also controls video laser disc images. Her piece, *Violin Power*, consisted of a series of moving video vignettes that played while she controlled both the sounds heard and images seen.

In one vignette, a youthful Vasulka played the acoustic violin in a '60s black-and-white film clip. Vasulka speeded up the image and the sound until the girl Vasulka was playing superhumanly; she altered the modulation of the music; she made the girl play in reverse — all the while making music. Vasulka watched the images she was altering on monitors as she was doing it, much as two musicians might watch each other while playing a duet.

The third piece, *Is Art Is*, was performed by Floyd in New York and Rosenboom in Santa Monica. It, too, used Yamaha's Disklavier technology. The images showed each man playing a piano — while the keys of an adjacent piano moved, as if

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played by an invisible person. In fact, each man's fingers were triggering electronic signals that played the Disklavier on the opposite coast — the one with the empty piano stool in front of it. To the ear, the complex rhythmic jazz work sounded as if the pianos — and their players — were side by side.

The final piece, performed by Rosenboom in Santa Monica and Floyd and Smith in New York, was Rosenboom's *Predictions, Confirmations and Disconfirmations*.

Asked by an audience member in New York how it felt to perform a continent apart from his partner, Floyd said it offered a whole new perspective on the concept of projecting to an audience.

"The 'gallery' is 5,000 miles away," he said. Floyd also noted that the quarter-second transmission delay works well only for some kinds of music.

"Right now, we're adapting music to the telephone lines," he said, noting that in the future, music will be written for the new venue.

The Santa Fe audience included musicians and computer

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STEVE ADER

aficionados ranging in age from their early 20s to their 70s.

Tom Berkes, an adult music student at The College of Santa Fe, said he came because he is a personal friend of Floyd. Berkes is currently studying jazz on a real piano, but would like to experiment more with electronic music, he said.

Steve Ader, who transcribes classical music so it can be played on MIDI instruments, waxed philosophical about the new technology.

"I don't think this technology will be a savior," Ader said. "It's a medium. But it's a way of letting minds rub together — this binds people together.

"We're headed for a world community."



As violinist Steina Vasulka performs, she manipulates the image on the nearby monitor.

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